REMARKS

Applicants respectfully traverse the § 103(a) rejection of claims 1-2 over Pearce in view of Krueger, and the § 103(a) rejection of claims 3-13 over Pearce in view of JP '599.

Applicants traverse the § 103(a) combination of Pearce and Krueger for at least the following reasons. The Examiner contends that Pearce discloses at col. 1, lines 1-53 a transport member consisting of a carbon fiber reinforced plastic (CFRP). Applicants respectfully submit, however, that Pearce discloses a resin transfer molding (RTM) process and a resin transfer molding perform in col. 1, lines 1-53. Pearce does not disclose a transport member consisting of a CFRP as set forth in the present claims. Pearce discloses a preform fabric consisting of a CRFP at col. 1, lines 13-41, but this preform fabric is not a transport member; rather it is an article to be transported by transport means. Pearce discloses that a transport means is used when a fiber reinforced perform is transported onto a molded cavity, the transport means corresponding to center section 24 of member 20, placed on mandrel 16 in Figs. 1, 2, 9, and 10 of Pearce, and hence the Pearce transport means only serves as an auxiliary tool. Moreover, Pearce center section 24 is fabricated from a plurality of plies of fibrous cloth impregnated with epoxy resin (col. 5, lines 10-18), whereas the transport member recited in the claims comprises fiber-reinforced plastic. Furthermore, center section 24 of the Pearce transport means is adapted to steel member 16, col. 5, lines 18-21. The Pearce transport means is made into a desired shape so that it can be fitted on mandrel 16. In summary, the transport member of the invention is neither disclosed nor suggested by Pearce.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

The Examiner cites Krueger to teach "a fiber reinforced composite matrix that includes one or more layers of unidirectional fibers wherein the reinforcement direction may be 0/90/90/0," and asserts that it would be obvious to make Krueger's reinforced matrix into a "transport means" as in Pearce. However, as discussed above, the Pearce transport means must be shaped to conform to a mandrel, and Krueger's fiber reinforced composite matrix cannot possibly be made into the desired shape, so Krueger's composite matrix is not suitable for use in Pearce. At least for this reason, one of ordinary skill in the art would have no reason or motivation to combine Pearce and Krueger. Assuming *arguendo* that these references were combined, there still would be no reasonable expectation of successfully achieving the transport member of the claimed invention. For all of these reasons, the § 103(a) rejection of claims 1-2 over Pearce in view of Krueger is improper, and should be withdrawn.

Applicants also traverse the § 103(a) rejection of claims 3-13 over Pearce in view of JP '599 for the following reasons. These claims recite skin and core layers with fiber-reinforced plates having a fiber orientation recited in the claims. As discussed above, Pearce neither teaches nor suggests a transport member having fiber-reinforced plastic. The Examiner cites JP '599 as allegedly showing a lengthwise sandwich panel with a multi-layer structure formed from unidirectional carbon fiber reinforced plastic with perpendicular fiber orientation, used as a solar cell. However, JP '599 neither teaches nor suggests using its panel to fabricate a transport means, and one skilled in the art would not be motivated to use the JP '599 sandwich panel as a transport means in Pearce. These references, therefore, also are not properly combinable, and this § 103(a) rejection should be withdrawn.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

In addition, the Examiner stated that since a logarithm vibration damping factor of a transport member is a physical property, it is an inherent feature in any carbon fiber reinforced material. Applicant does not agree, but this point notwithstanding, the range of logarithmic vibration damping factor recited in amended claims 1, 3, and 5, is neither known, nor suggested in the references, and the recited range is not inherent in the references. This damping factor is apparent from a comparison of Example 2 and comparative Example 2 in the present specification. Neither Pearce, Krueger, nor JP '599 disclose this range of logarithm vibration damping factor of a transport member.

The claimed logarithm vibration damping property is achieved by the structural features of the invention, *e.g.*, one layer containing a unidirectional reinforced fiber having a tensile elasticity of 500 to 1000 GPa, as set forth in claims 1, 3, and 5, in combination with a second layer having the features recited in the claims. None of the cited references disclose carbon fibers having this tensile elasticity. No possible combination of the references, therefore, can suggest under § 103(a) all of the features recited in the apparatus claims 1-13.

In view of the above amendments and remarks, applicants submit that the claims are patentable over the cited references, and request reconsideration and allowance thereof.

Entry of this amendment after final is proper because it should require no additional search, in that the language added to claims 1, 3, and 5, was formerly recited in claim 11, and purportedly already considered by the Examiner. The amendment was not presented earlier because the Examiner presented new grounds for rejection in the Final Office Action, and these new grounds led to this Amendment. Nevertheless, in the

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

event that the Examiner refuses to enter this amendment, applicants have filed herewith a Notice of Appeal in order to keep this case alive.

If any additional fees are required to enter this response not accounted for above, please charge them to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.

Dated: August 14, 2003

By: _____
James W. Edmondson
Reg. No. 33,871

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com